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On Saving Money

Charles Higgins

Abstract

In the consideration to save more money, whether for retirement or say for travel, many focus on the less important activities and ignore some of the more important ones.

Purchasing Methods

In a discussion regarding methods to save money, it would seem that many people focus on less important activities and ignore some of the more important ones. An initial analysis would segregate what is purchased from how it is purchased—namely one could use cash, checks, credit cards, or debit cards. Using cash lessens concerns of billing mistakes, is preferred by servers who earn tip income, but does involve handling something that may be unsanitary and may incur the possibility of loss plus perhaps ATM fees in terms of acquisition. Checks are bothersome but do provide a verified accounting trail, sometimes are required, and sometimes one can sign up for automatic payments instead. Credit cards which provide a “float” on your money until payment is due are generally preferred for purchases in that there is usually a general liability limit of 50 dollars and they often provide rebates in terms of cash or points toward say travel. On the other hand, credit cards with a limited credit range charge interest if not paid in full by the date due and should be fully paid given generally high interest rates. Debit cards, which immediately withdraw funds from your existing account up to the amount of your current account balance, have unlimited liability and thus should be only used to obtain cash at say ATMs (*Bankomat* in Sweden, *Bankomato* in Italy, *Caixa* in Spain, *Cash Machine* in the U.K., *Distributeur* in France, *Geldautomat* in German and Dutch, or *Otto* in Finland).

ATM Withdrawals

For those using cash obtained from an ATM the question arises as to what is an appropriate amount to withdraw. One can avoid ATM charges in a number of ways by obtaining a debit card that waives ATM charges from any other ATM (often with free checks and obtained from some brokerage firms, banks, and credit unions) or by using a debit card for a purchase with cash back at say a grocery store. Regardless, one can determine an optimal amount for cash withdrawals from the Economic Order Quantity which is: $\text{Quantity} = (2 \times \text{Annual Usage} \times \text{Transaction Cost/Interest Rate})^{1/2}$ and turns out often to be \$200 given frequent ATM limits and common parameters for most people.

Effective Search Procedures

In terms of methods to save money, there is yet another—an efficient purchase search procedure. Peter Lynch of Magellan Fund said that some people spend more time buying a toaster than planning for retirement and it's easy to see why—the toaster choice consists of colors, number and width of slots and price whereas there are literally thousands of investment funds in many types of accounts to choose from when it comes to retirement. Consider that for an average purchase that one may save 5 percent if one expands the search—whether it is discussions with friends, searching the internet or magazine reviews (especially *Consumer Reports* and not *Consumer's Digest* which is an industry shill), talking with mechanics, test drives, and so on. As such, if one earns \$100 per hour (or would like to) then one should spend one hour for each \$2,000 of purchase. That would mean that the toaster purchase should be limited to perhaps a minute or two whereas a new car purchase one could allocate a day or two—and more so for a new home.

Credit Cards

There are a plethora of credit card choices. They generally have a 16 digit account number starting with 37 for American Express, 38 for Diners (which created the credit card concept but is now defunct and acquired by Discover), 4 for Visa, 5 for Master Card, 6 for Discover, and 7 for Federal usage. There are affinity cards, bank cards, and many firm specific cards. Many of these offer either cash rewards or points frequently used for travel equivalent in valuation to usually about 1.5 cents. Do note that many airlines have converted from awarding mileage points to 5 points per dollar spent and thus now earn roughly one-third as much as before for coach travelers. Others such as Amtrak rail travel awards 2 points per dollar spent and Amtrak points are worth about 2 cents. A more important consideration is whether a card charges an eventual annual fee or has other fees. These usually should be avoided while noting some cards provide a sign-up bonus. Note that some merchants give discounts to customers using cash or debit cards. Many recommendations can be found both on line and in consumer publications noting that some cards have minimum usage requirements, maximum limits, time limited promotions, fees, or tie-ins to cross related products such as banking or mortgages or other loans.

While there are a myriad of choices, I've excluded Discover Card in that it is generally not usable outside the United States. Also excluded was American Express which may (or not) charge an annual fee and that it is useable normally in more expensive locales. Likewise other credit cards charge the merchant a fee starting at 3 percent with the exception of American Express which charges more and thus many merchants prefer that customers avoid its usage. Travel point cards were also excluded in that they often have annual fees and that the value of the travel points have high redemption thresholds and often expire in addition to being about equal to the cash back choice from Capital One with no thresholds and immediate cash redemptions. Thus, a culling of some of the better credit card offers include Bank of America which provides a 1 percent cash back (which will normally not be used) or 2 percent on groceries and 3 percent on gasoline redeemable in amounts over 25 dollars and uses the last 4 digits of the Social Security number for verification; Chase which provides 1 percent (which will not be used) or 5 percent on specified quarterly categories including groceries, gasoline, restaurants, and other categories redeemable in amounts over 20 dollars and uses the Zip code for verification; and Capital One which provides 1.5 percent (2 percent to business accounts) upon request and is immediately redeemable in any amount and uses the last 4 digits of the Social Security number for verification. It should be noted that Capital One does *not* charge a 3 percent foreign currency conversion fee (like American Express) and does not have monthly maximum earning limits on purchases as do the others. If one is offered a choice of currencies, take the local currency choice if using a card with no currency conversion fees. Here's a quarterly summary for 2016:

	Grocery	Gasoline	Shopping	Restaurant
JanMar	2 BofA	5 Chase	1.5 CapO	1.5 CapO
AprJun	5 Chase	3 BofA	1.5 CapO	1.5 CapO
JulSep	2 BofA	3 Bof A	1.5 CapO	5 Chase
OctDec	2 BofA	3 Bof A	5 Chase	1.5 CapO
Average	2.75	3.5	2.37	2.37

As relevant aside, one may need or want to contact the institution associated with say MasterCard or Visa if the card is unavailable or if one is calling from another country. This could be for emergencies, unblocking a security hold, checking a current balance, and/or for

making a payment. For MasterCard a printable pdf file can be found at:
<https://www.mastercard.com/global/assets/docs/GlobalServiceTollfreeNumbers.pdf>.

For Visa it is at:

https://usa.visa.com/dam/VCOM/download/personal/security/gcas_general_numbers.pdf.

Reward Cards

In the United States some grocery stores offer reward points which convert to cash and are separable and additive to the usage of credit cards. These include Ralph's and Vons/Pavilion's grocery stores which offer \$.10-.20/gallon for each 100-200 points on Shell and Chevron gasoline respectively with survey and bagging bonuses plus occasional double points. Of course there exist other programs ranging from restaurants to department stores to shopping on line.

Purchasing Options

Many think of obvious places to save money but as we will see they turn out to be insignificant or beyond the scope of relevancy. Consider recycling cans or tipping less or turning off the night light for the former and stop smoking or turning down/up the heating/cooling or buying instead of leasing a car among the latter. The latter are more a statement about lifestyle choices while noting that it has been estimated that buying an automobile instead of leasing one for personal use could result in a gain of over a quarter of a million dollars toward retirement. Likewise, a preference for a certain temperature setting for heating or cooling can be more a result of a collective opinion or discussion—albeit in spite of admonitions from utilities—should be considered. Some methods now follow in rank order of other possibilities in terms of yearly savings:

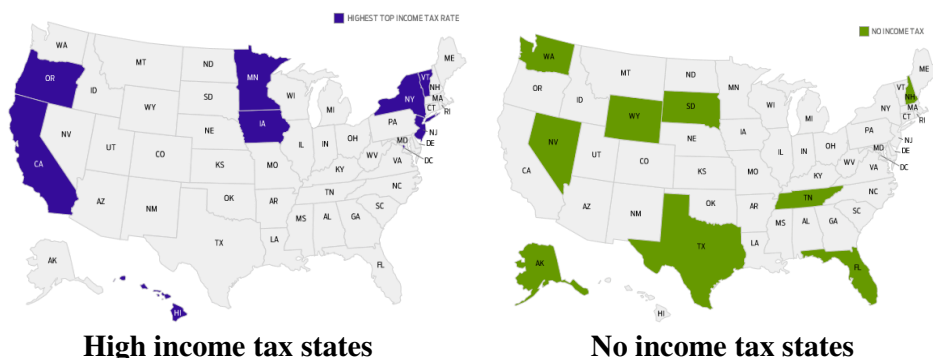
Mow your own lawn at \$20/week	\$1000
Basic cable TV \$70-30 = \$40/month	\$480
Early Bird/Happy hour (\$1.50 x 2 or \$3) x 3/week	\$450
Avoid beggar requests or playing Lotto \$1/day	\$365
Cheaper coffee \$5/week	\$250
Driving slow 16,000m/yr @22m/g vs. fast @20m/g x \$3/g	\$220
Save with higher insurance deductions	\$200
Chas. Schwab brokerage card avoids \$3/week ATM fee	\$150
Driving to cheaper gas station \$.20 x 15 gal x 50 weeks	\$150
Florescent bulbs 3x60watts x10h/d x 365d/y x \$.20/kwh	\$130
Measured rate telephone service \$22-\$13=\$9/mo +20%tax	\$130
Cut your own hair \$20/2months	\$120
Wash your own car \$20/2months	\$120
Street event parking instead of paying to park \$10/month	\$120
1.5% plus no 3% foreign currency fee on \$2,200/yr travel	\$100
One dollar coupon or senior discount restaurant 2x/week	\$100
Bus to airport 3 roundtrips x \$15	\$ 90
3.5% average on gasoline \$50/week	\$ 88
Fix a leak \$.01/hr	\$ 88
\$.10-.20/gal x 15gal on gas \$3/bimonthly	\$ 72
2.75% on groceries \$50/week	\$ 68
Tipping 15% vs. 20% (if appropriate) on \$25/week	\$ 62
Power strip off 2x15watts x 20h/d x 365d/y x \$.20/kwh	\$ 44
Recycle cans \$.10/day	\$ 36
Turning off night light 60watts x 8h x 365h/y x \$.20/kwh	\$ 35

Here is a graphic of the possible savings:

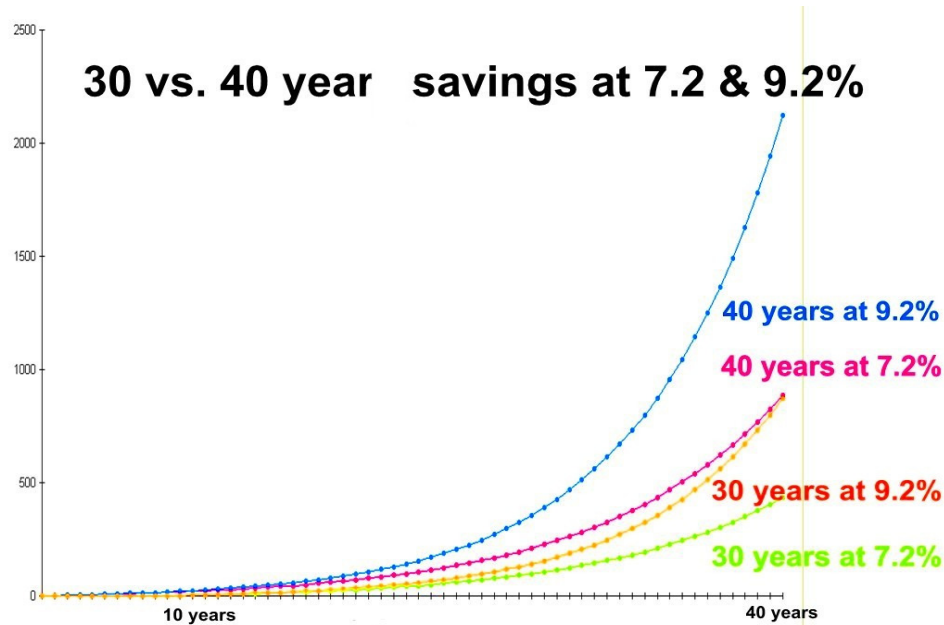


Retirement Options

There are many investment vehicles as distinguished from the shelters in which they are placed. The former include stocks, bonds, mutual funds, and exchange traded funds (ETFs) which are like mutual funds but trade like stocks. Likewise, there are a number of sheltered retirement options in addition to one's personal cash account including pretax pensions like a 401k, 403b, 457, and plans for public employees, teachers and the self employed. There are other choices while nominally funded from after tax monies are equivalent to a pretax retirement pension. Consider the above savings which total more than \$3,700 and can be used to fully fund a \$5,500 tax deductible traditional IRA (Individual Retirement Arrangement) account for those under the age of 50 (\$6,500 if over 50) and would save some \$1,800 in states with high income tax rates or at least \$1,540 in Federal taxes at say 28 percent. If one does not have a qualified pension plan (indicated as checked box on the filer's tax statement) then one is generally qualified for a traditional IRA account. There are readjusted AGI IRA limits in 2016 for those with a qualified pension plan (see IRS publications 17, 590, and/or 915). For traditional tax deductible IRAs the limit for a single filer is below \$61,000 decreasing up to \$71,000 and for a married filer is below \$98,000 decreasing up to \$118,000. For non deductible Roth IRAs the limits for a single filer is below \$117,000 decreasing up to \$132,000 and for a married filer is below \$184,000 decreasing up to \$194,000 (for nonworking spouses it is below \$98,000 decreasing up to \$118,000). A map of high income tax states and states with no income taxes follows:



The saving choices enumerated previously are more profound when retirement deposits are made earlier in life. Consider a return of 7.2 percent (it doubles every 10 years) and starting with yearly deposits at age 20 versus age 30 will result in a doubling by age 60. If one uses no load low expense ratio mutual funds or ETFs (saving perhaps 2 percent which would now earn 9.2 percent) then it would double again:



Rebalancing

When asked for investment advice I half jokingly reply “Buy low, sell high.” But that is an introduction to explain that perhaps once a year during tax preparation one could merely rebalance one’s investment mix into say even proportions after allocating perhaps one’s age as a percentage toward safer investments. This rebalancing leads to buying more of the proportion that shrank at a lower price and selling some of the proportion that rose at a higher price with the goal not being that of timing the market but instead minimizing risk and diversification.

Conclusion

In summary, one can identify and prioritize relevant areas to save money, whether it is to fund one’s IRA account or for that trip to Europe. Do observe that about one-quarter of the savings are obtained by the method of purchase. Of the remainder, about one-half do benefit the ecology noting that in washing the car it may be unclear as to whether it is appropriate per local drought regulation, the car’s environment, or personal preference in terms of washing it at home or at a paid car wash and that there may be cross benefits in terms of savings versus effects upon the environment. Notice some choices require personal time and effort such as mowing the lawn (or letting it go rustic) or cutting your own hair (or letting it grow out) or washing the car (or not). The other choices involve trade-offs of other kinds such as: there could be free HDTV with an antenna versus “necessary” paid TV programming, driving time, the cost of florescent bulbs which is now becoming a moot issue, required insurance coverage, high telephone usage or a cell phone with no land line, the need to have close by parking for the handicapped or aged, that one may use cash back on a debit card instead of ATMs, one may not travel in foreign countries, one may not qualify for a senior discount or that it is not available, there may be no convenient bus to the airport, that there is no leak to

fix, or that one's tipping preference is different. While every person's circumstance will differ, it seemed useful here to note the different possibilities with an eye toward their relative importance.

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